

TITLE 326 AIR POLLUTION CONTROL DIVISION

Final Rule

LSA Document #17-282(F)

DIGEST

Amends [326 IAC 7-4.1-20](#) concerning the sulfur dioxide emission limitations applicable to the United States Steel-Gary Works (USS) facility. Effective 30 days after filing with the Publisher.

HISTORY

Findings and Determination of the Commissioner Pursuant to [IC 13-14-9-8](#): June 28, 2017, Indiana Register (DIN: [20170628-IR-326170282FDA](#)).

Notice of First Hearing: June 28, 2017, Indiana Register (DIN: [20170628-IR-326170282PHA](#)).

Date of First Hearing: October 11, 2017.

[326 IAC 7-4.1-20](#)

SECTION 1. [326 IAC 7-4.1-20](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 7-4.1-20](#) U.S. Steel-Gary Works sulfur dioxide emission limitations

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 20. (a) U. S. Steel-Gary Works, Source Identification Number 00121, shall comply with the following sulfur dioxide emission limitations in pounds per million British thermal units (MMBtu) and pounds per hour when the coke oven gas desulfurization emissions unit is not operating during the following periods:

Emissions Unit Description	Emission Limit lbs/MMBtu	Emission Limit lbs/hour
(1) During January through December:		
(A) Turboblower Boiler House Boiler No. 6	0.115	81.7
(B) No. 4 Boiler House Boiler Nos. 1, 2, and 3:		
(i) During periods when Blast Furnace No. 13 Stoves are combusting blast furnace gas:		
(AA) When three (3) boilers are operating	0.115	172.5 total
(BB) When two (2) boilers are operating	0.173	172.5 total
(CC) When one (1) boiler is operating	0.345	172.5 total
(ii) During periods when Blast Furnace No. 13 Stoves are not combusting blast furnace gas and Hot Strip Mill Waste Heat Boiler Nos. 1 and 2 are combusting coke oven gas:		
(AA) When three (3) boilers are operating	0.200	300.0 total
(BB) When two (2) boilers are operating	0.300	300.0 total
(CC) When one (1) boiler is operating	0.600	300.0 total
(iii) During periods when Blast Furnace No. 13 Stoves are not combusting blast furnace gas and Hot Strip Mill Waste Heat Boiler Nos. 1 and 2 are not combusting coke oven gas:		
(AA) When three (3) boilers are operating	0.195	293.0 total
(BB) When two (2) boilers are operating	0.293	293.0 total
(CC) When one (1) boiler is operating	0.586	293.0 total
(C) Number 2 Coke Plant Boiler House:		
(i) Boiler No. 8	1.270	346.2
(ii) Boiler No. 9	1.270	298.45
(iii) Boiler No. 10	1.270	298.45
(D) Coke Oven Underfiring Stacks:		
(i) Nos. 2 and 3	1.270	251.5 each
(ii) Nos. 5 and 7	1.270	158.75 each
(E) During periods when the 84-inch Hot Strip Mill Continuous Reheat Furnaces Nos. 1, 2, 3, and 4 are not combusting coke oven gas:		

(i) Hot Strip Mill Waste Heat Boiler No. 1 or 2	1.270	287.0
(ii) Remaining Hot Strip Mill Waste Heat Boiler	0.704	159.0
(F) Hot Strip Mill Continuous Reheat Furnace Nos. 1, 2, 3, and 4 during periods when combusting coke oven gas:		
(i) When four (4) furnaces are operating	0.256	615.0 total
(ii) When three (3) furnaces are operating	0.342	615.0 total
(iii) When two (2) furnaces are operating	0.513	615.0 total
(iv) When one (1) furnace is operating	1.025	615.0 total
(G) Number 3 Sinter Plant Windbox Gas Cleaning Systems		260.0 total
(H) Coke Oven Gas Desulfurization Facility Tail Gas Incinerator		22.0
(I) Blast Furnace Stove Stacks:		
(i) No. 4	0.115	40.25 total
(ii) No. 6	0.115	40.25 total
(iii) No. 8	0.115	37.38 total
(J) Blast Furnace Stove Stack 13 during periods when combusting blast furnace gas	0.134	93.50 total
(K) No. 13 Blast Furnace Casthouse Baghouse during periods when Blast Furnace No. 13 Stoves are combusting blast furnace gas		115.0
(L) No. 2 Q-BOP Shop Hot Metal Desulf Baghouse	0.05 pounds per ton hot metal	28.54
(M) No. 1 BOP Shop Hot Metal Desulf Baghouse	0.05 pounds per ton hot metal	28.54
(2) During specified periods:		
(A) Turboblower Boiler House Boiler Nos. 1, 2, 3, and 5:		
(i) During periods when the Hot Strip Mill Waste Heat Boiler Nos. 1 and 2 are not combusting coke oven gas:		
(AA) January through April:		
(aa) When four (4) boilers are operating	0.594	974.5 total
(bb) When three (3) boilers are operating	0.792	974.5 total
(cc) When two (2) boilers or less are operating	1.188	974.5 total
(BB) May through October:		
(aa) When four (4) boilers are operating	1.006	1,650.0 total
(bb) When three (3) boilers are operating	1.341	1,650.0 total
(cc) When two (2) boilers or less are operating	2.012	1,650.0 total
(CC) November through December:		
(aa) When four (4) boilers are operating	0.384	630.0 total
(bb) When three (3) boilers are operating	0.512	630.0 total
(cc) When two (2) boilers or less are operating	0.768	630.0 total
(ii) During periods when the Hot Strip Mill Waste Heat Boiler Nos. 1 and 2 are combusting coke oven gas:		
(AA) January through April:		
(aa) When four (4) boilers are operating	0.625	1,025.0 total
(bb) When three (3) boilers are operating	0.833	1,025.0 total
(cc) When two (2) boilers or less are operating	1.250	1,025.0 total
(BB) May through October:		
(aa) When four (4) boilers are operating	0.994	1,630.0 total
(bb) When three (3) boilers are operating	1.325	1,630.0 total
(cc) When two (2) boilers or less are operating	1.988	1,630.0 total
(CC) November through December:		
(aa) When four (4) boilers are operating	0.351	575.0 total
(bb) When three (3) boilers are operating	0.467	575.0 total
(cc) When two (2) boilers or less are operating	0.701	575.0 total
(B) Number 2 Coke Plant Boiler House Boiler Nos. 4 and 5:		
(i) January through April	0.444	150.0 total
(ii) May through October	0.385	130.0 total
(iii) November through December	0.0006	0.203 total

~~(C) Number 2 Coke Plant Boiler House Boiler No. 6:~~

(i) January through April	1.27	214.6
(ii) May through October	1.27	214.6
(iii) November through December	1.18	200.0

~~(b)~~ **(a)** U.S. Steel-Gary Works, **Source Identification Number 00121**, shall comply with the following sulfur dioxide emission limitations in pounds per **million British thermal units** (MMBtu) and pounds per hour: ~~when the coke oven gas desulfurization emissions unit is operating:~~

Emissions Unit Description	Emission Limit lbs/MMBtu	Emission Limit lbs/hour
(1) Turboblower Boiler House:		
(A) Boilers Nos. 1, 2, 3, and 5:		
(i) When four (4) boilers are operating	0.427	700.0 total
(ii) When three (3) boilers are operating	0.569	700.0 total
(iii) When two (2) boilers or less are operating	0.854	700.0 total
(B) Boiler No. 6	0.115	81.7
(2) Number 4 Boiler House Boiler Nos. 1, 2, and 3:		
(A) When three (3) boilers are operating	0.353	529.0 total
(B) When two (2) boilers are operating	0.529	529.0 total
(C) When one (1) boiler is operating	1.058	529.0 total
(3) Number 2 Coke Plant Boiler House:		
(A) Boiler No. 3	0.260	40.6
(B) Boiler Nos. 4 and 5	0.260	87.9 total
(C) Boiler No. 6	0.260	44.0
(D) Boiler No. 7	0.260	42.1
(E) Boiler No. 8	0.260	64.7
(F) Boiler No. 9	0.260	61.10
(G) Boiler No. 10	0.260	61.10
(4) Coke Battery Number 2, 3, 5, and 7 Underfiring:		
(A) Nos. 2 and 3	0.260	51.5 each
(B) No. 5	0.270	33.8
(C) No. 7	0.260	32.5
(5) (3) Blast Furnace Stove Stacks:		
(A) No. 4	0.115	40.25 total
(B) No. 6	0.115	40.25 total
(C) No. 8	0.115	37.38 total
(D) No. 13	0.134	93.50 total
(6) (4) 84-inch Hot Strip Mill:		
(A) Waste Heat Boiler Nos. 1 and 2	0.260	58.8 each
(B) Continuous Reheat Furnaces Nos. 1, 2, 3, and 4:		
(i) When four (4) furnaces are operating	0.182	436.5 total
(ii) When three (3) furnaces are operating	0.243	436.5 total
(iii) When two (2) furnaces are operating	0.354	436.5 total
(iv) When one (1) furnace is operating	0.728	436.5 total
(7) (5) Number 3 Sinter Plant Windbox Gas Cleaning Systems		200 total
(8) Coke Oven Gas Desulfurization Facility Tail Gas Incinerator		295
(9) (6) No. 13 Blast Furnace Casthouse Baghouse		115
(10) (7) No. 2 Q-BOP Shop Hot Metal Desulf Baghouse	0.05 pounds per ton hot metal	28.54
(11) (8) No. 1 BOP Shop Hot Metal Desulf Baghouse	0.05 pounds per ton hot metal	28.54

~~(e)~~ **(b)** U.S. Steel-Gary Works shall comply with additional sulfur dioxide emission requirements as follows:

- (1) U.S. Steel-Gary Works shall record and make available to IDEM, upon request, process and fuel use information pertaining to each emissions unit, process, or combustion unit identified in this section, including the following:
 - (A) Identification of the applicable limit.
 - (B) The amount and type of each fuel used for each emissions unit for each calendar day of operation.
 - (C) The operating scenario chosen for the U.S. Steel-Gary Works.
 - (D) The hourly sulfur dioxide emission rate in pounds of sulfur dioxide per hour calculated by dividing the total daily sulfur dioxide emissions in pounds of sulfur dioxide per day by twenty-four (24) hours.
 - (E) The hourly sulfur dioxide emission rate in pounds of sulfur dioxide per MMBtu for those emissions units with a pounds of sulfur dioxide per MMBtu limit in this rule calculated by dividing the total daily sulfur dioxide emissions in pounds of sulfur dioxide per day by the total heat input per day in MMBtu.
- (2) U.S. Steel-Gary Works shall submit an exception report to the department within thirty (30) days of an exceedance of the limitations in this section that includes the following:
 - (A) Identification of the applicable limit or limits being exceeded.
 - (B) Identification of any emissions unit exceeding the applicable limit and the dates when the limits were exceeded.
 - (C) The calculated sulfur dioxide emission rate in pounds per hour for each emissions unit exceeding the limitations for the days that the pounds per hour limitations were exceeded.
 - (D) The calculated sulfur dioxide emission rate in pounds per MMBtu for each combustion unit, furnace, boiler, or process operation for each emissions unit exceeding the pounds per MMBtu limitations for the days that the limitations were exceeded.
 - (E) The actual daily fuel usage for each combustion unit, furnace, boiler, or process operation for each emissions unit exceeding the limitations for the days that the limitations were exceeded.
- (3) An emission unit ~~shall~~ **must** burn natural gas only:
 - (A) if it is not listed in this rule; or
 - (B) under any operating condition not specifically listed in this rule.
- (4) ~~The desulfurization facility is restricted to no more than nine hundred fifty (950) hours of downtime in a calendar year.~~

(Air Pollution Control Division; [326 IAC 7-4.1-20](#); filed May 25, 2005, 10:50 a.m.: 28 IR 2962; filed Jan 22, 2018, 3:45 p.m.: [20180221-IR-326170282FRA](#))

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